

## PATENT

## REMARKS

Claims 10-28 are pending in the present application.

In the Office Action mailed February 4, 2005, Examiner rejected claims 10-22 under 35 U.S.C. § 103(a) as being unpatentable over van Nee (USPN 6,175,550) in view of Jung et al. (USPN 6,307,851).

Applicants respectfully respond to this Office Action and traverse all rejections. Applicants also add new claim 29.

*Claim Rejections – 35 USC § 103(a)*

Examiner rejected claims 10-22 under 35 U.S.C. § 103(a) as being unpatentable over van Nee in view of Jung.

Applicants' claims 10-22 are patentable over van Nee and Jung because van Nee and Jung, either alone or combined, neither teach nor suggest all elements of Applicants' claims. Therefore, there is no *prima facie* case of obviousness.

Applicants' claim 10, and all of Applicants' claims, include the feature "wherein the forward link frequency bins and the at least one reverse link frequency bins comprise signals obtained by code spreading in the time domain." In van Nee, the "control circuitry can dynamically scale the number of carriers below the upper limit on the number of carriers to decrease the signal bandwidth" (please see van Nee col. 1, line 65 to col. 2, line 2). Van Nee does not teach code spreading as in Applicants' claims in the time domain but rather OFDM, in which signal generation is performed in the frequency domain. Therefore, Applicants' claim 10, and all of Applicants' claims are distinct and patentable over van Nee.

Jung teaches MC-CDMA in which codes are applied in the frequency domain. Please see Jung col. 4, line 35 through col. 5, line where "subscriber-specific signature code sequences" are applied prior to an inverse discrete Fourier transform. Jung performs these computations in time only in the sense that all computations, including "frequency domain" operations, are performed as a function of time by processors, computational elements, or the human brain. The terms "time domain" and "frequency domain", however, have an ordinary use to those with ordinary skill in the art. Frequency domain operations are performed on a signal after the signal has gone

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through a time-to-frequency transform (e.g. a Fourier transform, discrete cosine transform, etc.) or prior to the signal going through a frequency-to-time transform (e.g. an inverse Fourier transform, an inverse discrete cosine transform, etc.). Please see *Digital Signal Processing: Principles, Algorithms and Applications (3rd Edition)* by John G. Proakis and Dimitris Manolakis or any signal processing text. Hence, Jung may perform the computations as a function of time (as all computations are performed) but the computations are performed in "frequency domain" and not in the "time domain" as in Applicants' claims.

Therefore, van Nee in combination with Jung does not teach all elements of Applicants' claims - specifically, frequency bins comprising signals code spread in the time domain. Applicants' specification as originally filed discusses the advantages of frequency allocation of frequency bins comprising signals code spread in the time domain including flexible spectrum management and integration with existing hardware as well as the selection of various frequency bins. Please see pages, for example, 12-17.

***New Claims***

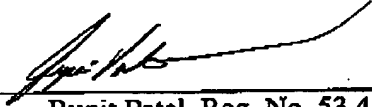
Applicants add new claim 29. The claim is supported by the specification as originally filed. For example, please see pages 13-14.

**PATENT****REQUEST FOR ALLOWANCE**

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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